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EXAMINER

BELLINGER, JASON R

ART UNIT PAPER NUMBER

3617

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/031,758

Applicant(s)

GAUTIER, ANTOINE

Examiner

Jason R Bellinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in France on 5 June 2000. It is noted, however, that applicant has not filed a certified copy of the FR 0007166 application as required by 35 U.S.C. 119(b).

***Specification***

2. The abstract of the disclosure is objected to because it is an exact copy of independent claim 1; this is improper (see below). Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Objections***

4. Claim 4 is objected to because of the following informalities: The term "rim" in line 1 should be replaced with the term --wheel-- due to the fact that a rim and a hub are considered separate parts, that when constructed together with other parts (such as a

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wheel disc) form a wheel. Therefore, a hub is not typically considered to be included as part of the rim, and it would be more proper to conform to common description in the art to state that a wheel has a hub instead of a rim having a hub. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 2, 4, 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 is indefinite due to the fact that it is unclear what is meant by the phrase "the rotary antenna being carried by the cap on its face ***looking towards*** the spindle" in lines 5-6. A suggested change to more clearly define the invention would be to restate the phrase as --the rotary antenna being carried by the cap on a face parallel to the free end of the spindle and extending axially inwardly from said face--.

Claims 6 and 7 are indefinite due to the fact that it is unclear what is meant by the phrase "which turns" in line 3 of each claim. It is suggested that the term "which" be replaced with the term --said-- or an equivalent term to more clearly define the claims.

Claim 7 is further indefinite due to the fact that it is unclear whether the cap or the rotary antenna forms a support, as set forth by the phrase "...the rotary antenna is carried directly by the cap forming a support."

7. Claim 2 recites the limitation "the free end" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 4 recites the limitations "the free end" and "its face" in lines 4 and 6, respectively. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Francois et al. Francois et al shows the use of a wheel having a rim (2a & 2b) that receives a tire, the wheel having a sensor 1 for measuring the pressure inside the tire. The wheel is rotatably mounted on a spindle 14. Communication means exists between the sensor 1 and means 9 associated with the spindle 14 for processing the information; that communication means being a rotary antenna 7 carried on the wheel and a stationary antenna 6 carried on the spindle 14.

Both the rotary antenna 7 and the fixed antenna 6 are disposed in the vicinity of a free end of the spindle 14. The rotary and fixed antennas (7 & 6, respectively) are placed facing each other in succession in line with the spindle 14, substantially coaxially about the axis of rotation of the wheel. Both antennas are generally circularly

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symmetrical, due to the fact that they are formed by coils of metallic wire; these coils forming the transmission and/or reception elements of the respective antenna.

11. Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmid et al. Schmid et al shows the use of a wheel having a rim 4 that receives a tire 1, the wheel having a sensor 6 for measuring the pressure inside the tire. The wheel is rotatably mounted on a spindle 19. Communication means exists between the sensor 6 and means 21 associated with the spindle 19 for processing the information; that communication means being a rotary antenna 8 carried on the wheel and a stationary antenna 20 carried on the spindle 19.

Both the rotary antenna 8 and the fixed antenna 20 are disposed in the vicinity of a free end of the spindle 19. The rotary and fixed antennas (8 & 20, respectively) are placed facing each other in succession in line with the spindle 19. Both antennas are formed by coils of metallic wire that form the transmission and/or reception elements of the respective antenna.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmid et al. Schmid et al contains all of the limitations as set forth in paragraph 11 above, but does not show the rotary antenna being carried on a hubcap that closes off a passage at the free end of the spindle, so that the rotary and fixed antennas are confined in an essentially closed space defined by the hubcap, spindle, and hub.

Schmid et al does show a hubcap (unlabelled) that closes off a passage at the free end of the spindle to define an essentially closed space between the hubcap, spindle, and hub. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to connect the rotary antenna on the interior surface of the hubcap so that the hubcap supports the rotary antenna, for the purpose for preventing debris and foreign matter from possible damaging the antenna.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show tire pressure sensors involving radio wave transmitting antenna attached to one or more components of the wheel and axle assembly. For example, Monson shows a tire pressure sensor of the type described above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon- Thurs (9:00-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Jason R Bellinger  
Examiner  
Art Unit 3617



jrb  
February 7, 2003



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